

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 – 8 (Cancelled).

9. (Previously Presented) An isolated, enriched or purified BDP1 polypeptide.

10. (Original) The isolated, enriched, or purified polypeptide of claim 9, wherein said polypeptide is a unique fragment.

11. (Currently Amended) The polypeptide of claim 10, wherein said polypeptide comprises at least 12 contiguous amino acids present in the full length amino acid sequence ~~shown in Figure 3 of SEQ ID NO: 36~~.

12. (Original) The polypeptide of claim 11 wherein said polypeptide is isolated, purified, or enriched from a mammal.

13. (Previously Presented) An antibody or an antibody fragment having specific binding affinity to a BDP1 polypeptide.

14. (Currently Amended) The antibody of claim 13, wherein said polypeptide comprises at least 4 contiguous amino acids of the amino acid sequence ~~shown in Figure 3 of SEQ ID NO: 36~~.

15. (Previously Presented) A hybridoma which produces an antibody having specific binding affinity to a BDP1 polypeptide.

16. (Currently Amended) The hybridoma of claim 15, wherein said polypeptide comprises at least 25 contiguous amino acids present of the amino acid sequence ~~shown in Figure 3 of SEQ ID NO: 36~~.

17. (Original) The hybridoma of claim 16 wherein said polypeptide is isolated, purified, or enriched from a mammal.

Claims 18 – 20. (Cancelled).

21. (Previously Presented) A method of detecting a compound capable of binding to a BDP1 polypeptide, comprising the steps of incubating said compound with said polypeptide and detecting the presence of said compound bound to said polypeptide.

22. (Previously Presented) A method of identifying a compound capable of activating or inhibiting BDP1 protein phosphorylation activity wherein said method comprises the following steps:

adding a compound to a mixture containing a BDP1 polypeptide and a substrate for said protein; and

detecting a change in phosphorylation of said substrate.

23. (Previously Presented) A method of identifying compounds useful for diagnosis or treatment of an abnormal condition in an organism, wherein said abnormal condition is associated with an aberration in a signal transduction pathway characterized by an interaction between a polypeptide and a natural binding partner, wherein said polypeptide is a BDP1 polypeptide, comprising the following steps:

adding a compound to cells; and
detecting whether the compound promotes or disrupts said interaction between the polypeptide and a natural binding partner.

24. (Previously Presented) A method for diagnosis or a disease or condition characterized by an abnormality in a signal transduction pathway, wherein said signal transduction pathway includes an interaction between a BDP1 polypeptide and a natural binding partner, comprising the step of detecting the level of said interaction as an indication of said disease or condition.

25. (Previously Presented) A method for treatment of an organism having a disease or condition characterized by an abnormality in a signal transduction pathway, wherein said signal transduction pathway includes an interaction between a BDP1 polypeptide and a natural binding partner, comprising the step of promoting or disrupting said interaction.

Claims 26 – 27. (Cancelled).